

# Handbook

## Connection of PA/VA system SIMAX and LDA



Device: **SXQX240S02**

## 1 SECURITY INSTRUCTIONS.

1. Please, read these safety instruction carefully.
2. Save this user manual for future use.
3. Unplug the device from the power adapter (AC) before cleaning it.
4. Don't use liquid or spray detergent to clean the device.
5. Use a cloth for cleaning.
6. Don't expose this device to moisture.
7. Install the equipment on a safe surface, otherwise the device may fall and be damaged.
8. The gap in the housing are for air circulation, don't allow overheating. **DON'T OBSTRUCT THE GAP.**
9. Place the power wire where people don't step on or trip over it. Don't place objects on the power wire.
10. Always follow the warnings that the device can give you.
11. If the device isn't used for several days, disconnect the power supply to avoid overloading. Never pour liquid into the openings of the device, it may cause a fire or electric shock.
12. Never open the device. For safety reasons, the device should only be opened by qualified personnel.
13. Pay attention to the connection polarity when the equipment is powered by a DC power source. A polarity of reverse connection, can cause damage to the device or the power supply.
14. Allow qualified personnel to check the device, if any of these situations happen:
  - a) The power wire or power outlet is damaged.
  - b) Liquid has entered the device.
  - c) The device has been exposed to moisture.
  - d) The device doesn't work well or doesn't according to the handbook.
  - e) The device has fallen down and is damaged.
  - f) If the device has obvious signs of damage.
15. Disconnect the audio inputs and outputs when making connections. Make sure you use the proper wires to make the connections.

## 2 DESCRIPTION OF THE SYSTEM.

The system consists of three devices:

1. Mixer/amplifier model QX-240 of the SIMAX trademark (see handbook).
2. A-1 microphone station of the LDA trademark (see handbook).
3. Amplifier BA-2500 of the LDA trademark (see handbook).

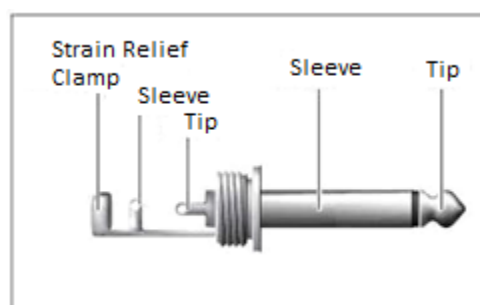
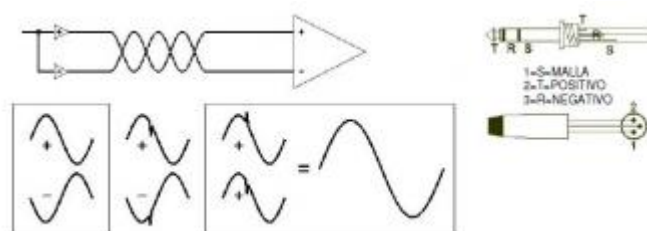
The input sources to the system are connected to the inputs of the QX-240, with the input 1 of said equipment reserved for the microphone A-1 to active the priority. In the microphone, only pins 1, 2 and 3 were connected for the corresponding positive, negative and ground of the audio. Pins 4 and 5 of the microphone weren't connected.

In the amplified outputs of the QX-240 you can connect the speakers with only one line with a maximum load of 240W, or several lines whose sum mustn't exceed this maximum power (for example, in channel 1 outputs 180w and channel 2 exit with 60W of load).

The pre-amplified "PRE-AMP out" output of the QX-240 will be connected to the inputs of the BA-2500 amplifier. In the amplifiers of the BA series each output is independent so we will have to make a bridge between output 1 and 2.

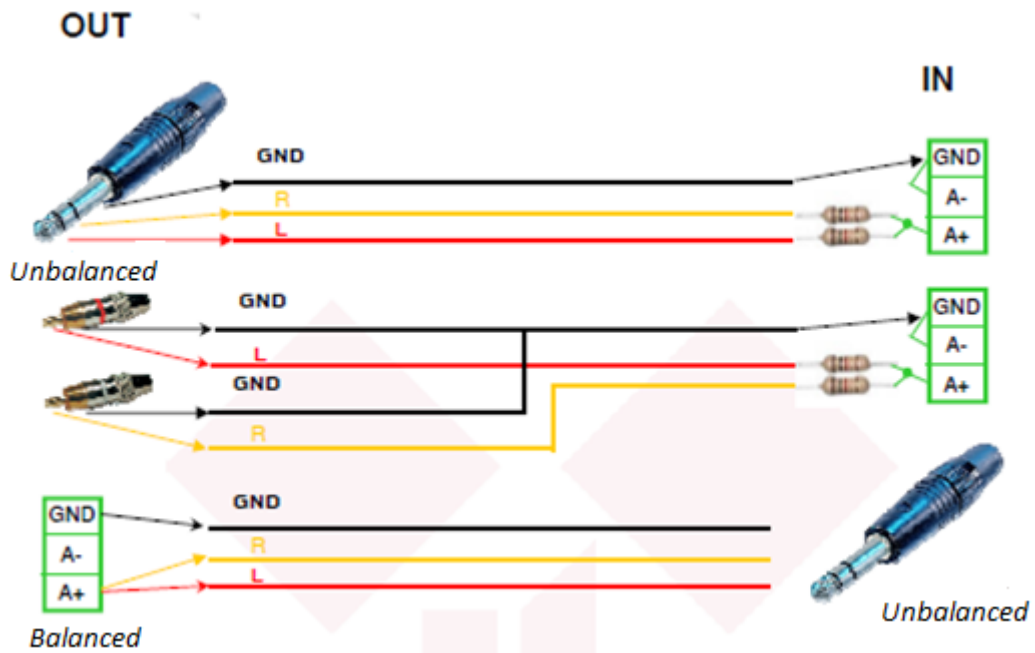
## 3 BALANCED AUDIO CONNECTION.

In all the connections and wiring of the system the audio must be balanced. Balanced audio consists of sending an audio signal on a communication channel, it is transmitted in duplicate, one of them with inverted polarity:

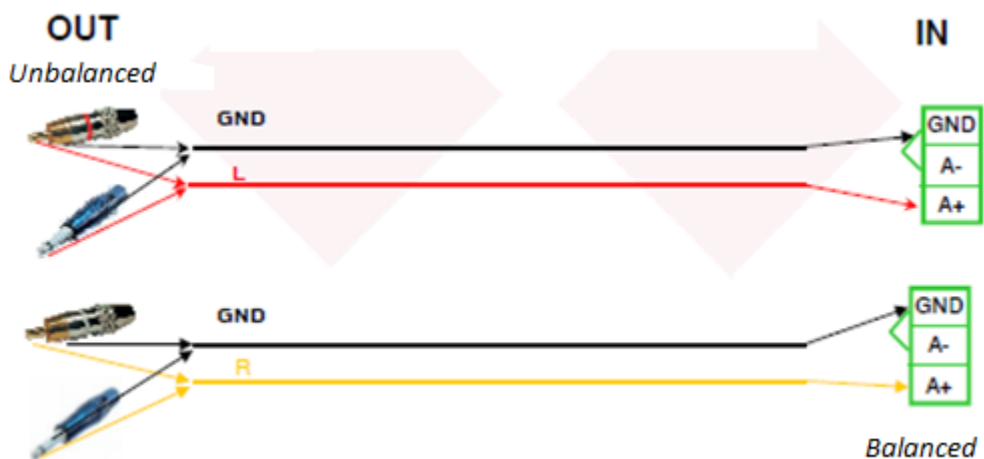


The typical wiring for unbalanced stereo and mono cables at the input of balanced audio system is show below.

**CONNECTION WITH STEREO WIRE.**



**CONNECTION WITH WIRE MONO.**



\* Impedance matching with a 10 Kohm resistance bridge.

#### 4 CONNECTION DIAGRAM.

As explained above, the connection will be made between the pre-amplified output of the QX-240 (connection module # 4) and the line inputs of the BA-2500 amplifier (connection terminal # 3).

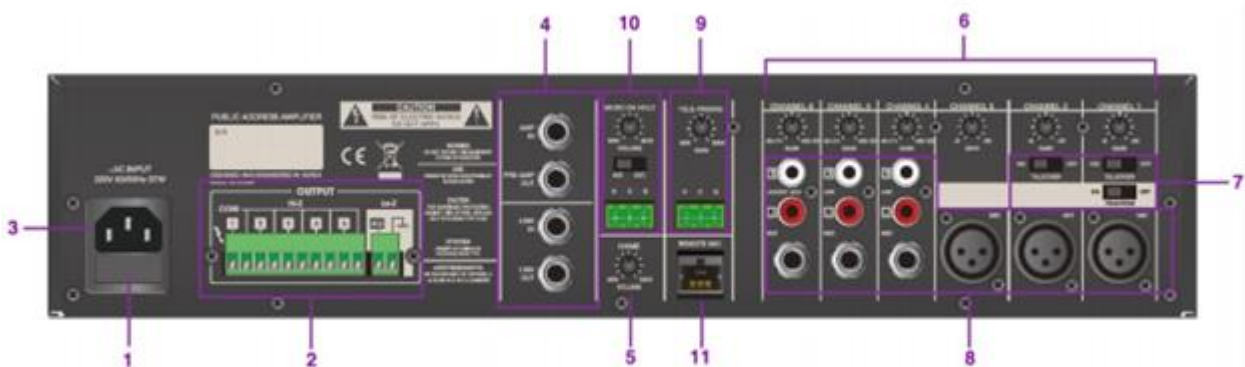


Illustration 1: Rear view of QX-240

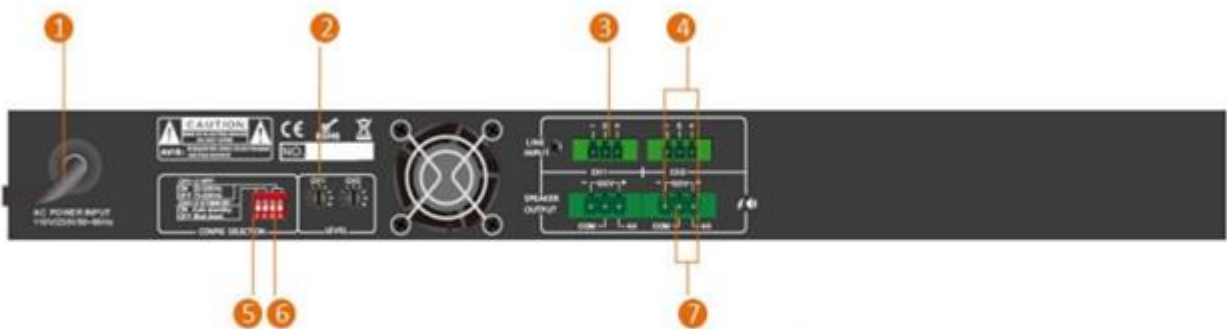


Illustration 2: BA series rear view

It will be necessary to make a short wire with a JACK stereo (balanced) connector on one end, and a three-way terminal on the other.

**NOTE:** important to check the connectors, some of them (JACK type or three-way CANON) may not be included in the device.

Once this connection has been made, in the amplifier it will be necessary to carry out a bridge (positive, negative and earth) on the inputs (connection terminal # 3 and 4).

The connection diagram of the indicated device is show below:

